

**REMARKS/ARGUMENTS**

Claims 1-20 are pending. By this Amendment, claims 2, 3, 14, 15, 16 and 20 are amended. No new matter has been added.

Claims 2, 14, 15, 16 and 20 are amended to explicitly recite implicit features. Claim 3 is amended into independent form.

An Information Disclosure Statement was filed on March 15, 2005. The Examiner is requested to consider the submitted information and return to the undersigned an initialed and signed copy of the Form PTO-1449 submitted therewith.

For the following reasons, reconsideration is respectfully requested.

**I. FORMAL MATTER**

Claim 3 is objected to as allegedly being improperly dependent on a base claim and failing to further limit the subject matter of a previous claim. Claim 3 is amended into independent claim form. Withdrawal of the objection is respectfully requested.

**II. REPLY TO REJECTIONS**

**A. 35 U.S.C. § 102**

On page 3 of the Office Action, claims 1-8, 14, 16 and 20 are rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 4,866,515 to Tagawa et al. (hereinafter "Tagawa"). The rejection is respectfully traversed.

It is respectfully submitted that Tagawa fails to teach or suggest each and every feature of independent claims 1, 2, 3, 5, 14, 16 and 20, or the respective claimed combination. To state Tagawa's deficiencies concisely, Tagawa fails to disclose or suggest, among others, a tuning unit as recited in independent claims 1 and 5, a multiplexer as recited in independent claims 2 and 3, a converting step or an extracting step as variously recited in independent claims 14 and 16, and a downloader as recited in claim 20, or the respective claimed combinations.

Instead, Tagawa discloses a frequency multiplexed transmitting system and method for transmitting video signals, audio signals, and television game software signals from a central transmitting apparatus to each of a plurality of terminal units mounted at respective passenger seats in a passenger vehicle such as aircraft (see, for example, Abstract of Tagawa). However, Tagawa fails to disclose or suggest a transport stream that is time basis multiplexed packet units of image and audio information of a broadcast signal, a list of game programs, and game-related information, as variously called for in independent claims 2, 3, 14, 16 and 20. Additionally, Tagawa fails to disclose or suggest converting the image and audio information of a broadcast signal, a listing of game programs, and game-related information into a transport stream, in its transmitting side, as variously called for in independent claim 14. Further, Tagawa fails to disclose or suggest a tuning unit configured to receive the image and audio information of the broadcast signal, a game program ordered by a user, and game-related information, and to select either the image and audio information corresponding to a broadcast channel desired by the user

or the game program ordered by the user, in its receiving side, as called for in independent claims 1 and 5.

More specifically, Tagawa discloses a plurality of video tape recorders 1a-1d, a tuner 2, a still picture reproducing apparatus 3, an audio reproducing apparatus 4a, 4b, and a controller 5. Audio and video output from devices 1a-4b are variously sent to the controller 5, the CADA encoders 6, 7, and a plurality of modulators 11a-11g. As shown in Fig. 1 of Tagawa, both the video and audio signals from VTR-OVR 1a and VTR-1 1b are sent to the controller 5. However, the video signal from VTR-2 1c is sent to the modulator 11b, while the audio signal from VTR-2 1c is sent to the CADA encoder 6. The video signal from VTR-3 1d is sent to the modulator 11c, while the audio signal from VTR-3 1d is sent to the CADA encoder 6. Similarly, the video signal from the tuner 2 is sent to the modulator 11d, while its audio signal is sent to the CADA encoder 6, and so on. Therefore, it is clear that each of the CADA encoders 6 and 7, and the modulators 11a-11g do not receive all of the audio and video signals.

The video signal and an audio signal based on data of a game from game ROM 9a-9h are supplied to the encoder 7. Between encoder 6 and 7, only control data signals SC 1 and SC 2 are supplied. Tagawa discloses that the two CADA encoders 6, 7 are capable of time division multiplexing a plurality of digital audio and data signals (and not the video signals of devices 1a-5) and transmitting the multiplexed signals over a vacant one channel bandwidth of a CATV (see, for example, col. 4, lines 4-11 of Tagawa), where the time division multiplexing operation is

carried out by converting a plurality of audio signals into digital signals in the A/B converter and so on (see, for example, col. 4, lines 12-20 of Tagawa).

The various audio signals provided to encoder 6 are time division multiplexed and signal SCA 1 emerges from output terminal 0. A time division multiplexed signal SCA 2 emerges from an output terminal 0 of encoder 7 (see, for example, col. 5, lines 10-17 of Tagawa). SCA 2 includes the plurality of digitally converted audio signals generated in encoder 7, and the control data SC 1 and SC 2 and signal SD supplied to encoder 7 (see, for example, col. 5, lines 18-21 of Tagawa). Therefore, the CADA encoder 6 and the CADA encoder 7 each separately handle the audio signals (not the video signal) of the channel, and the game data signals. The CADA encoder 6 handles the audio signals of the broadcast signals and CADA encoder 7 handles the audio signals of the broadcast signals and game signals.

The video signals from devices 1a-4b are forwarded to various modulators 11a-11e. Thereafter, they are added together with the multiplexed signal containing the audio signal coming from modulators 11f and 11g. The signals are then added in an adder 12 and they are then frequency multiplexed. The frequency multiplexed signal S<sub>MF</sub> from the adder 12 is supplied through a signal distributor 13 through one end of a leaky cable 21 (see, for example, Fig. 1, and col. 5, lines 43-47 of Tagawa). Thus, Tagawa fails to disclose or suggest a multiplexer configured to convert image and audio information of a broadcast signal, a game program, and game related information by packet unit on a time basis into a transport stream, as recited in independent

claims 2 and 3. CADA encoders 6 and 7 each multiplexes only specific signals, and the adder 12 only frequency multiplexes the above signals.

On the receiving side, Tagawa discloses, among others, an antenna 31, a signal distributor 32, and a separate t.v. tuner 33 and a tuner 34. Tagawa's tuners 33 and 34 do not disclose or suggest a tuner as called for in independent claims 1 and 5. Tagawa discloses that the tuner 33 is capable of selectively receiving channels in the output frequency bands of the modulators 11a-11e, which are video signals relating to the VTRs 1a-1d, the tuner 2, the still picture reproducing apparatus 3 and the controller 5 (see, for example, col. 5, lines 66-68 of Tagawa). Thus, the tuner 33 has nothing to do with the game data signal relating to the CADA encoder 7 and the modulator 11g.

On the other hand, the tuner 34 is capable of selectively receiving channels in the output frequency bands of the modulators 11f and 11g, which are the time division multiplexed signal of the digitally converted audio signals generated in the CADA encoders 6 and 7, control data SC 1 and SC 2 supplied to the CADA encoders 6 and 7, and the data signal supplied to the CADA encoder 7 (see, for example, col. 5, line 68 through col. 6, line 2 of Tagawa). Thus, the CADA tuner 34 does not receive the video signals of devices 1a-4b (see, for example, col. 5, lines 10-15, and col. 5, line 60 through col. 6 line 4 of Tagawa). After the selective receipt of the various signals in the tuners 33 and 34, the video signals emerging from tuner 33 are separately supplied to the section and display apparatus 35 and the time division multiplexed signals SCA 1 or SCA 2 emerging from tuner 34 are separately supplied to a CADA decoder 36 (see, for

example, col. 6, lines 5-17 of Tagawa). Thus, Tagawa fails to disclose or suggest a tuning unit configured to receive all components of a transport stream, as recited in independent claims 1 and 5.

Consequently, Tagawa fails to disclose or suggest a tuning unit configured to receive the image and audio information of a broadcast signal, a game program ordered by a user, and game-related information, and to select either the image and audio information corresponding to a broadcast channel desired by a user, or a game program ordered by the user, as recited in independent claims 1 and 5. Tagawa also fails to disclose or suggest a multiplexer configured to convert image and audio information of a broadcast signal, a game program, and game-related information by packet unit on a time basis into a transport stream, as recited in independent claims 2 and 3. Tagawa also fails to disclose or suggest converting image and audio information of a broadcast signal, a game program, and game-related information by packet unit on a time basis into a transport stream, as recited in claim 14. Tagawa also fails to disclose or suggest extracting a game list comprising game-related information from a transport stream that includes time basis multiplexed packet units of image and audio information of a broadcast signal, a listing of game programs, and game-related information, as recited in independent claim 16. Tagawa also fails to disclose or suggest a broadcast and game receiving device having a downloader configured to receive a transport stream having time basis multiplexed packet units of image and audio information of a broadcast signal of a channel, a game program, and game-related information, and to download a game program ordered by a user using the game-related

information encoded with the image and audio information of the broadcast signal, as recited in independent claim 20.

Consequently, independent claims 1, 2, 3, 5, 14, 16 and 20 are patentable. Claim 4, which depends from claim 3, and claims 6-8, which depend from claim 9, are likewise patentable over the applied reference for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 6 of the Office Action, claims 9-13 are rejected under 35 U.S.C. § 103(a) over Tagawa, in view of U.S. Patent No. 5,935,004 to Tarr et al. (hereinafter "Tarr"). The rejection is respectfully traversed.

As discussed above, Tagawa discloses a T.V. tuner 33 and a CADA tuner 34, each of which selectively receives either a video signal or an audio signal. Both tuners 33 and 34 are controlled in their channel selection by a selection and display apparatus 35 (see, for example, col. 6, lines 2-4). As shown in Fig. 1 of Tagawa, the video and audio signals related to the broadcast from the tuner 33 are supplied to the selection and display apparatus 35 directly, while the time-division-multiplexed signal  $S_{CA1}$  or  $S_{CA2}$  (related to the game or the audio signals only) from the tuner 34 are supplied to the CADA decoder 36 (see, for example, col. 6, lines 5-11 of Tagawa). That is, only the game-related signals are sent through the CADA decoder 36.

Tagawa further elaborates that the video signal of the game based on data from ROM 9a is supplied to the selection and display apparatus 35 from the personal computer 37 (see, for example, col. 6, lines 55-61 of Tagawa), and the video and audio signals based on the data of the

selected game from ROMs 9b-9h are supplied from the personal computer 37 to the selection and display apparatus 35 (see, for example, col. 6, lines 62-63 of Tagawa). Thus, it is clearly disclosed in Tagawa that the conduit for sending video and audio signals of the broadcast is different from the conduit for sending video and audio signals of the game and that these two conduits are distinct.

Consequently, Tagawa fails to disclose or suggest a common game interface module configured to receive a first control signal and to demodulate a broadcast signal of a channel selected by a user, a game-program, and game-related information as recited in independent claim 9. Tarr fails to overcome the deficiencies in Tagawa, as Tarr is merely cited as allegedly teaching using a modem configured to receive a control signal to order a game desired by a user and that outputs a corresponding game ordering signal. Consequently, independent claim 9 is patentable over the applied references and their combination. Claims 10-13, which depend from claim 9, are likewise patentable over the applied references and their combination for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 8 of the Office Action, claim 15 is rejected under 35 U.S.C. § 103(a) over Tagawa in view of U.S. Patent No. 6,267,672 to Vance (hereinafter "Vance"). The rejection is respectfully traversed.

As discussed above, Tagawa fails to disclose or suggest all of the features recited in independent claim 14, from which claim 15 depends. Vance fails to overcome the deficiencies



in Tagawa, as Vance is merely cited as allegedly teaching adding a new game program and game related information to a previously established game list. Thus, claim 15 is patentable over the applied references and their combination for at least the reasons discussed above with respect to independent claim 14 and for the additional features it recites. Withdrawal of the rejection is respectfully requested.

On page 8 of the Office Action, claims 17 and 19 are rejected under 35 U.S.C. § 103(a) over Tagawa, in view of U.S. Patent No. 5,489,103 to Okamoto (hereinafter “Okamoto”). The rejection is respectfully traversed.

As discussed above, Tagawa fails to disclose or suggest each and every feature of claim 16, from which claims 17 and 19 depend. Okamoto fails to overcome the deficiencies in Tagawa, as Okamata is merely cited as allegedly teaching displaying an extracted game list on a screen. Thus, claims 17 and 19 are patentable over the applied references and their combination for at least for the reasons discussed above with respect to independent claim 16, and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 9 of the Office Action, claim 18 is rejected under 35 U.S.C. § 103(a) over Tagawa, in view U.S. Patent No. 6,005,561 to Hawkins (hereinafter “Hawkins”). The rejection is respectfully traversed.

As discussed above, Tagawa fails to disclose or suggest each and every feature of claim 16, from which claim 18 depends. Hawkins fails to overcome the deficiencies in Tagawa, as Hawkins is merely cited as allegedly teaching an interactive information delivery system in which

game related information comprises a packet identifier configured to identify a packet of a game program ordered by a user and a game list. Thus, claim 18 is patentable over the applied references and their combination and for the additional features it recites. Withdrawal of the rejection is respectfully requested.

### III. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Seth S. Kim, at the telephone number listed below.

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Reply to Office Action of March 2, 2005

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Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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